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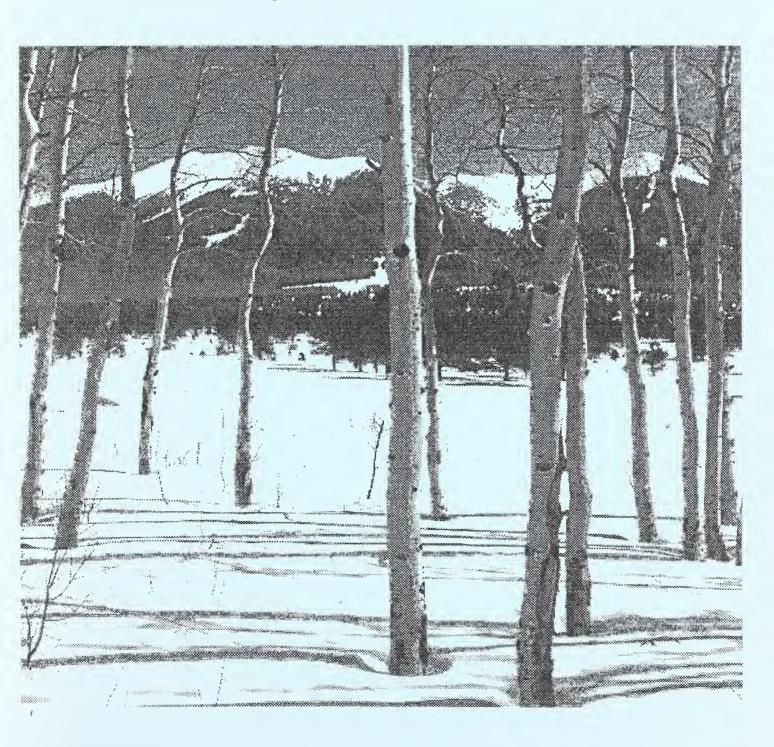




Conservation Service



Washington Basin Outlook Report May 1, 1994



Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

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or Scott Pattee Acting Water Supply Specialist Soil Conservation Service W. 316 Boone Ave., Suite 450 Spokane, WA 99201-2348 (509) 353-2341

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Soil Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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Washington Water Supply Outlook

May 1994

General Outlook

Forecasts for 1994 runoff vary from 92% of average for the Columbia near Birchbank to 41% for the Spokane River. As of May 1 The snowpack varied from a high of 88% of average in the Cowlitz - Lewis River Basin to 40% in the Spokane River Basin. Washington SNOTEL sites averaged 70% of the normal snowpack, down from 81% on April 1 (By May 6, the statewide average was 67%). April precipitation was 105% of normal statewide. It varied from 193% of average in the Okanogan - Methow Basins to 71% in the Yakima Basin. Year-to-date precipitation varies from 64% in the Spokane and Yakima Basins to 83% in the Olympic Basin. April temperatures were three to four degrees above normal across the state. April streamflows varied from 225% of normal in the Similkameen to 56% in the Yakima River at Kiona. By May 1, reservoir storage increased slightly throughout the state, with reservoirs in the Yakima Basin at 66% of average and 48% of capacity.

Snowpack

By May 1 several lower elevation SNOTEL sites, such as Salmon Meadows, Pope Ridge, Trough, Blewett Pass, Lost Horse and Mount Gardner were showing no or near little snow. On average snowpack at these sites should not be melted complete yet. Maximum snow cover was at Paradise SNOTEL near Mount Rainier, with a water content of 61.2 inches. Normal May 1 water content for this site would be 61.8 inches. The May 1 SNOTEL reading showed the statewide snowpack to be 70% of average. Snowpack varied considerably over the state, with the Spokane River Basin having the lowest at 40% of average, and the Olympic Basin having the highest at 91% of normal. Westside snowpack averages are: the Skagit River Basin with 59%, the Baker River basin at 72%, the Lewis - Cowlitz Basin had 88% and the White River at 75%. Snowpack along the east slopes of the Cascade Mountains included the Yakima Basin with 68% of normal, and the Wenatchee with 70%. Snowpack in the Okanogan Basin was at 57% of normal, and the Kettle had 60%.

Precipitation

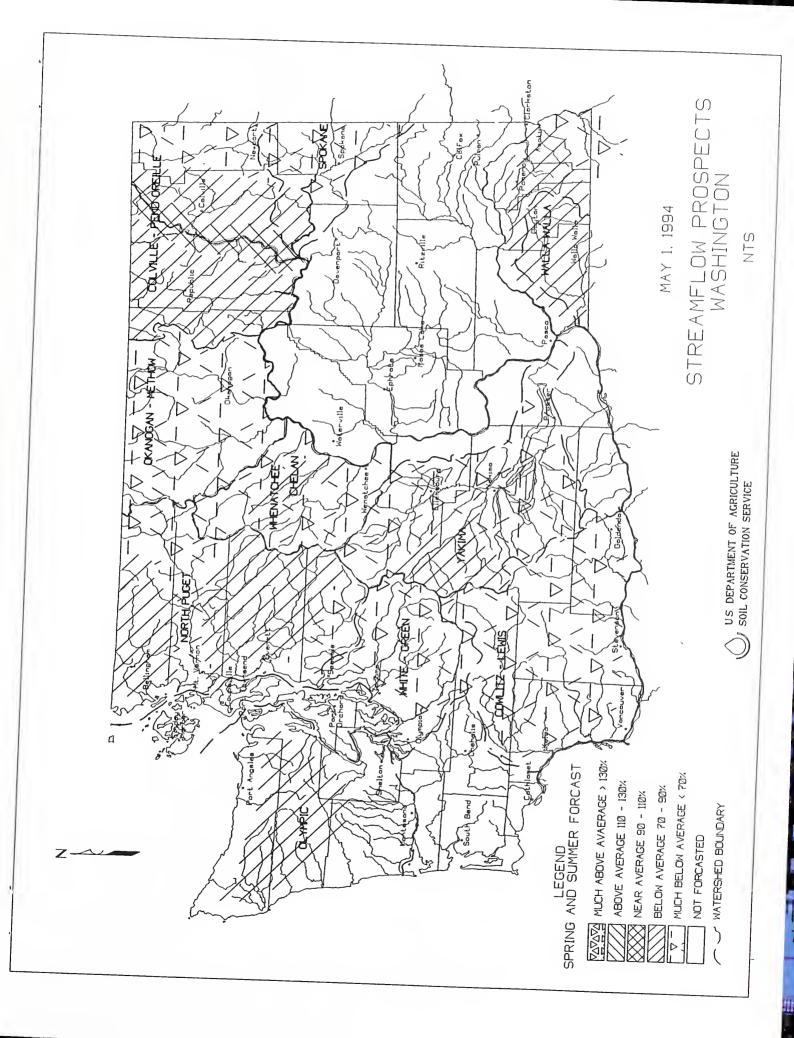
April precipitation varied from 193% of average in the Okanogan - Methow River Basins, to 71% in the Yakima Basin. April precipitation reported from National Weather Service stations was 105% of average statewide. The year-to-date precipitation statewide is 69%. It varies from 64% of normal in the Spokane and Yakima Basins, to 83% in the Olympic Basin. SNOTEL sites in Washington showed high elevation year-to-date precipitation values to be 78% of average. Maximum year-to-date precipitation was at the June Lake SNOTEL site near Mt. St. Helens, with 112.6 inches since October 1, 1993. Normal for this site is 129.8 inches.

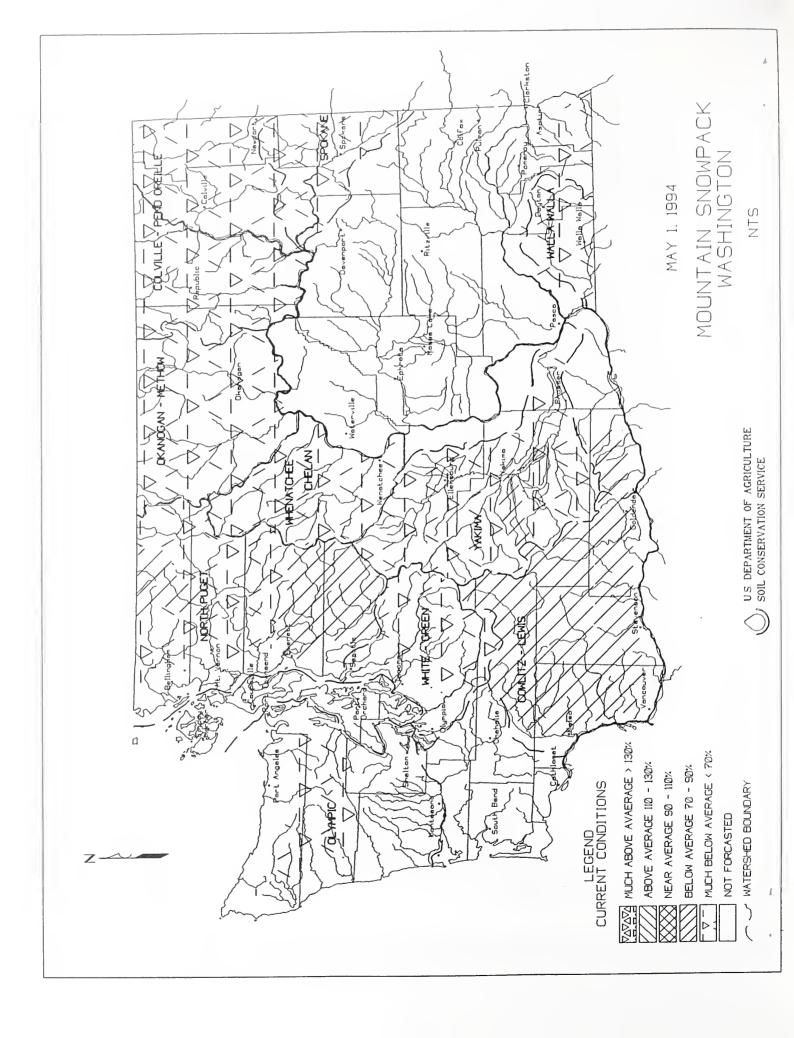
Reservoir

With increased snow melt and runoff due to warmer temperatures, reservoir levels continued to rise. Reservoir storage in the Yakima Basin was 513,200 acre feet, 66% of normal. Storage at other reservoirs included Roosevelt at 320% of average, and the Okanogan reservoirs at 134% of normal for May 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 184,500 acre feet, or 75% of normal; Chelan Lake, 281,300 acre feet, 63% of average and 42% of capacity, and Ross Lake at 139% of average and 64% of capacity.

Streamflow

April streamflows varied greatly in Washington. Similkameen Creek at Nighthawk was the highest at 225% of normal, the Yakima River at Kiona with 56% of normal, was still the lowest in the state. Other streamflows were the following percentage of normal: the Cowlitz River, 95%; the Okanogan River, 206%; the Wenatchee River, 143%; the Columbia at the Canadian border, 157%, and the Spokane River, 67%. Forecasts for summer streamflows are for below to much below average. They vary from 92% of average for the Columbia near Birchbank to 41% of normal for the Spokane River near Post Falls. May forecasts for some Westside streams include: Cedar River, 64%; Green River, 69%; and the Dungeness River, 73%. Some eastside streams include the Grande Ronde River, 51%; the Wenatchee River, 54%; and the Pend Oreille River, 54%. Salmon Creek near Conconully is forecast to have 67% of normal runoff and the Yakima near Parker 65%.





BASIN SUMMARY OF SNOW COURSE DATA

MAY 1994

SNOW COURSE	ELEVATION	DATE	SNOW	WATER	LAST	AVERAGE	SNOW COURSE	ELEVATION	DATE	SNOW	WATER	LAST	AVERAGE
			DEPTH	CONTENT	YEAR	1961-90				DEPTH	CONTENT	YEAR	1961-90
PEND OREILLE RIVER							MT. KOBAU C	N. 5900	4/28/94	22	8.3	14.2	13.3
BENTON MEADOW	2370	4/29/94	0	.0	.0	.0	OYAMA LAKE C	N. 4400	4/29/94	1	.3	2.0	3.1
BENTON SPRING	4920	4/29/94	5	2.2	11.6	13.6	POSTILL LAKE C	N. 4500	5/02/94	8	2.6	6.5	6.4
BOYER MOUNTAIN	5250	4/26/94	30	12.8	19.6	23.6	SALMON MDWS PIL	OW 4500	5/01/94		.os	3.9	1.1
BUNCHGRASS MEADOWS	5000	4/28/94	40	18.9	21.0	26.8	SILVER STAR HTN C	LN. 6000	4/28/94	60	24.4	31.1	29.7
BUNCHGRASS MDWPILLOW	5000	5/01/94		13.9	21.3	26.9	SUMMERLAND RES C	N. 4200	4/26/94	0	.0	4.9	6.3
HOODOO BASIN	6050	5/01/94		28.6E	35.1	51.2	SUNDAY SUMMIT C	พ. 4300	5/02/94	0	.0	.0	.8
HOODOO CREEK	5900	5/01/94		23.4E	32.1	47.1	TROUT CREEK CA	N. 4690	4/30/94	0	.0	2.8	4.8
LOOKOUT PILLOW	5140	5/01/94		13.5	29.0	29.3	VASEUX CREEK CA	N. 4600	4/26/94	0	.0	2.5	3.0
NELSON CAN.	3100	4/26/94	10	3.9	3.3	7.2	WHITE ROCKS MIN CA	N. 6000	4/29/94	27	11.7	19.4	22.4
KETTLE RIVER							METHOW RIVER						
BARNES CREEK CAN.	5300	4/27/94	35	16.6	18.8	20.5	HARTS PASS	6500	4/27/94	67	31.1	33.4	45.1
BIG WHITE MTN CAN.	5510	5/01/94	36	13.9	16.0	19.9	HARTS PASS PILI	OW 6500	5/01/94		26.75	35.8	42.0
CARMI CAN.	4100	5/01/94	0	.0	.0	1.7	SALMON MDWS PIL	OW 4500	5/01/94		.05	3.9	1.1
FARRON CAN.	4000	4/25/94	14	5.6	5.9	10.4	CHELAN LAKE BASIN						
GRAYSTOKE LAKE CAN.	5940	5/02/94	28	11.0	16.1	18.1	LYMAN LAKE PILI	OW 5900	5/01/94		42.2S	41.4	58.7
MONASHEE PASS CAN.	4500	4/27/94	165	6.6	10.1	12.8	MINERS RIDGE PILI	OW 6200	5/01/94		35.98	39.5	51.3
TRAPPING CK LOW CAN.	3050	5/01/94	0	.0	.0	.0	PARK CK RIDGE PILI	OW 4600	5/01/94		13.7E	25.6	33.6
TRAPPING CK UP CAN.	4460	5/01/94	0	.0	1.8	5.6	RAINY PASS	4780	4/29/94	56	26.6	24.2	40.6
COLVILLE RIVER							RAINY PASS PILI	.O₩ 4780	5/01/94		24.75	25.5	36.8
OMAK LAKE, TWIN LAKES							ENTIAT RIVER						
MOSES MTN PILLOW	4800	5/01/94		.05		7.3	POPE RIDGE PILE	OW 3540	5/01/94		.os	1.9	1.6
SPOKANE RIVER							WENATCHEE RIVER						
FOURTH OF JULY SUM	3200	5/01/94	0	.0	.0	.0	BLEWETT PASS 2PILI	OW 4270	5/01/94		.35	3.3	4.9
LOST LAKE (d)	6110	5/01/94		24.5E	46.8	57.1	FISH LAKE PILI	OW 3370	5/01/94		13.55	12.5	25.0
MOSQUITO RDG PILLOW	5200	5/01/94		15.0	30.5	34.7	LYMAN LAKE PILI	OW 5900	5/01/94		42.25	41.4	58.7
SUNSET PILLOW	5540	5/01/94		15.1	28.9	36.5	STEVENS PASS PILI	OW 4070	5/01/94		35.2S	22.4	32.1
LOOKOUT PILLOW	5140	5/01/94		13.5	29.0	29.3	TROUGH #2 PILI	OW 5310	5/01/94		.05	5.6	2.5
NEWHAN LAKE							UPPER WHEELER PILI	OW 4400	5/01/94		2.05	8.5	4.8
QUARTZ PEAK PILLOW	4700	5/01/94		4.8	16.8	18.6	SQUILCHUCK CREEK						
OKANOGAN RIVER							STEMILT CREEK						
ABERDEEN LAKE CAN.	4300	5/01/94	0	.0	.6	1.7	UPPER WHEELER PILI	OW 4400	5/01/94		2.05	8.5	4.8
BLACKWALL PEAK CAN.	6370	5/01/94		19.9	23.0	36.3	COLOCKUM CREEK						
BRENDA MINE CAN.	4800	4/29/94	5	2.2	10.3	9.8	TROUGH #2 PILI	OW 5310	5/01/94		.05	5.6	2.5
BROOKMERE CAN.	3200	4/30/94	0	.0	.0	5.1	YAKIMA RIVER						
ENDERBY CAN.	6200	4/30/94	92	41.3	38.2	42.9	BIG BOULDER CREEK	3200	5/01/94		5.3E	7.5	7.7
ESPERON CK. UP CAN.	5410	5/01/94	26	9.5	15.9	17.5	BLEWETT PASS#2PILL	OW 4270	5/01/94		.35	3.3	4.9
FREEZEOUT CK. TRAIL	3500	4/27/94	0	.0	.7	7.0	BUMPING LAKE (NEW)	3400	5/01/94		7.6E	. 0	10.9
GREYBACK RES CAN.	5120	4/26/94	6	2.0	8.3	7.7	BUMPING RIDGE PILI	OW 4600	5/01/94		16.65	19.8	18.9
HAMILTON HILL CAN.	4890	5/01/94	1	.3	8.1	12.6	CAYUSE PASS	5300	5/01/94		68.7E		88.1
HARTS PASS	6500	4/27/94	67	31.1	33.4	45.1	CORRAL PASS PILI	OW 6000	5/01/94		24.85	31.7	29.5
HARTS PASS PILLOW	6500	5/01/94		26.75	35.8	42.0	FISH LAKE	3370	5/01/94		12.18	9.5	22.4
isintok lake can.	5500	4/27/94	0	.0	7.8	6.3	FISH LAKE PILL	OW 3370	5/01/94		13.55	12.5	25.0
LIGHTNING LAKE CAN.	4000	5/02/94	3	.9	5.3	11.5	GREEN LAKE PILL	OW 6000	5/01/94		14.05	20.7	19.7
LOST HORSE MTN CAN.	6300	5/03/94	10	3.0	8.9	10.3	GROUSE CAMP PILL	DW 5380	5/01/94		2.85	8.8	9.2
MCCULLOCH CAN.	4200	4/29/94	0	.0	.0	2.4	LOST HORSE PILL		5/01/94		.25	12.8	8.2
MISSEZULA MTN CAN.	5090	5/01/94	0	.0	4.5	7.0	MORSE LAKE PILL		5/01/94		30.68	44.3	44.4
MISSION CREEK CAN.	5800	5/02/94	46	18.9	22.9	21.8	OLALLIE NDWS PILL		5/01/94		34.25	35.8	51.0
MONASHEE PASS CAN.	4500	4/27/94	165	6.6	10.1	12.8	SASSE RIDGE PILL		5/01/94		17.98	21.7	24.1
							REDUE FIELD				2,.,0		-4.1

SNOW COURSE		ELEVATION	DATE	SNOW	WATER CONTENT	LAST YEAR	AVERAGE 1961-90	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
STAMPEDE PASS	PILLO	W 3860	5/01/94		27.35	28.3	39.1	SKYKOMISH RIVER						
TUNNEL AVENUE		2450	5/01/94		8.3E	2.6	12.7	STAMPEDE PASS PILL	O₩ 3860	5/01/94		27.36	28.3	39.1
WHITE PASS ES	PILLO	4500	5/01/94		14.05	14.5	18.7	SNOQUALMIE RIVER						
AHTANUM CREEK								OLALLIE MDWS PILL	OW 3960	5/01/94		34.26	35.8	51.0
GREEN LAKE	PILLO	6000	5/01/94		14.05	20.7	19.7	STEVENS PASS PILL	OW 4070	5/01/94		35.25	22.4	32.1
LOST HORSE	PILLO	₹ 5000	5/01/94		.25	12.8	8.2	SKAGIT RIVER						
HILL CREEK								BEAVER CREEK TRAIL	2200	4/28/94	0	.0	.0	4.1
HIGH RIDGE	PILLO	4980	5/01/94		.05	14.2	12.4	BEAVER PASS	3680	4/28/94	37	17.0	12.6	28.1
TOUCHET #2	PILLO	5530	5/01/94		20.7	29.7	27.3	BROWN TOP	AH 6000	4/28/94	90	44.4	40.6	61.7
LEWIS - COWLITE I	RIVERS							DEVILS PARK	5900	4/27/94	66	29.6	29.2	45.0
CAYUSE PASS		5300	5/01/94		68.7E		88.1	FREEZEOUT CK. TRAI	L 3500	4/27/94	0	.0	.7	7.0
JUNE LAKE	PILLO	3200	5/01/94		19.15	25.7	19.6	HARTS PASS	6500	4/27/94	67	31.1	33.4	45.1
LONE PINE	PILLO	₹ 3800	5/01/94		24.25	28.3	26.4	HARTS PASS PILLA	O₩ 6500	5/01/94		26.75	35.8	42.0
PARADISE PARK	PILLO	5500	5/01/94		61.25	68.9	61.8	KLESILKWA CAI	N. 3710	5/01/94	0	.0	.0	8.3
PIGTAIL PEAK	PILLO	5900	5/01/94		36.0S	46.8	47.7	LIGHTNING LAKE CAN	1. 4000	5/02/94	3	.9	5.3	11.5
POTATO HILL	PILLO	4500	5/01/94		13.05	15.7	17.0	LYMAN LAKE PILLO	₩ 5900	5/01/94		42.25	41.4	58.7
SHEEP CANYON	PILLOW	4050	5/01/94		24.15	18.5	34.7	MEADOWS CABIN	1900	4/28/94	0	.0	.0	1.1
SPENCER MDW	PILLOW	3400	5/01/94		18.45	15.5	17.2	NEW HOZOMEEN LAKE	2800	4/27/94	0	.0	.0	4.5
SPIRIT LAKE	PILLOW	3100	5/01/94		.05	.0	.3	RAINY PASS	4780	4/29/94	56	26.6	24.2	40.6
SURPRISE LKS	PILLOW	4250	5/01/94		35.1S	39.7	36.1	RAINY PASS PILLO	W 4780	5/01/94		24.75	25.5	36.8
WHITE PASS ES	PILLOW	4500	5/01/94		14.05	14.5	18.7	THUNDER BASIN	4200	4/28/94	39	15.6	12.2	30.5
WHITE RIVER								THUNDER BASIN PILLO	W 4200	5/01/94		17.45	13.8	
CAYUSE PASS		5300	5/01/94		68.7E		88.1	BAKER RIVER						
CORRAL PASS	PILLOW	6000	5/01/94		24.85	31.7	29.5	SCHREIBERS MDW	LH 3400	5/01/94		42.2E	24.5	56.2
MORSE LAKE	PILLOW	5400	5/01/94		30.6S	44.3	44.4	WATSON LAKES	LH 4500	5/01/94		47.0E	43.9	67.2
GREEN RIVER								ELWHA RIVER						
COUGAR MIN.	PILLOW	3200	5/01/94		.05	.0	9.3	HURRICANE	4500	4/26/94	17	7.0	8.7	21.9
STAMPEDE PASS	PILLOW	3860	5/01/94		27.35	28.3	39.1	MORSE CREEK						
CEDAR RIVER								COX VALLEY	4500	4/30/94	51	23.8	20.6	39.1
MT. GARDNER	PILLOW	2860	5/01/94		.05		10.8	DUNGENESS RIVER						
TINKHAM CREEK	PILLOW	3000	5/01/94		7.45		16.7	DEER PARK	5200	4/28/94	7	3.0	8.0	18.7
MEADOWS PASS	PILLOW	3240	5/01/94		7.15		21.0	QUILCENE RIVER						
								HOUNT CRAG PILLO	W 4050	5/01/94		20.45	17.9	22.4

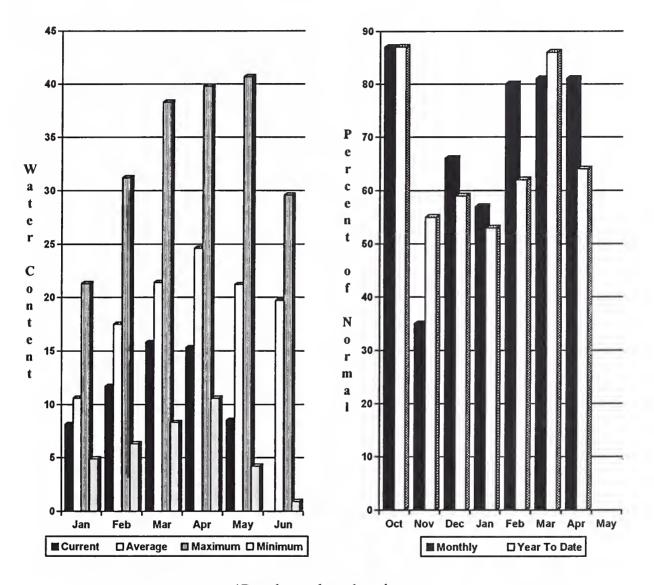
⁽d) Denotes discontinued site.

WYNOOCHEE RIVER

1) Spokane River Basin

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

The May 1 forecasts for summer runoff within the Spokane River Basin are 41% of normal, down from 51% last month. The forecast is based on a snowpack that is 40% of average and precipitation that is 64% of normal for the water year. Precipitation for April was 81% of average. Streamflow in the Spokane River was 67% of average for April. May 1 storage in Coeur d'Alene Lake was 184,500 acre feet, 75% of normal, and 77% of capacity. Temperatures in the basin were three degrees above normal during April.

SPOKANE RIVER BASIN

Streamflow Forecasts - May 1, 1994

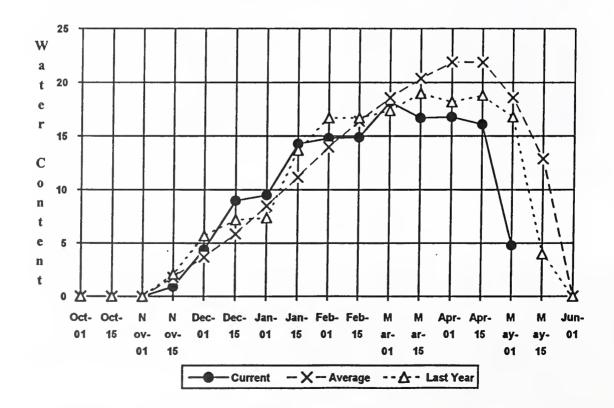
	!	<<	- Drier	Future C	conditions	Wetter	>>	
Forecast Point	Porecast				Exceeding * =			30 W- 3
	Period	90% (1000AF)	70% (1000AF)		Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg (1000AF
SPOKANE near Post Falls	may-sep	390	610	760	41	910	1130	1846
SPOKANE at Long Lake	MAY-JUL	515	740	895	45	1050	1280	1975
	MAY-SEP	700	930	1090	50 	1250	1480	2198
SPOKANE RIVER	BASIN				SPOKANE R	IVER BASIN		
	e (1000 AF) - End	of April		i	Watershed Sn	owpack Analys	is - May 1,	1994
	Usable		le Storage *	*		Numbe		Year as & of
Reservoir	Capacity 	This Year	Last Year A	vg Wate	rshed	of Data Si		Yr Average
COEUR D'ALENE	238.5	184.5	240.5 24	6.7 Spok	ane River	10	51	40
				i				_

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) The value is natural flow actual flow may be affected by upstream water management.

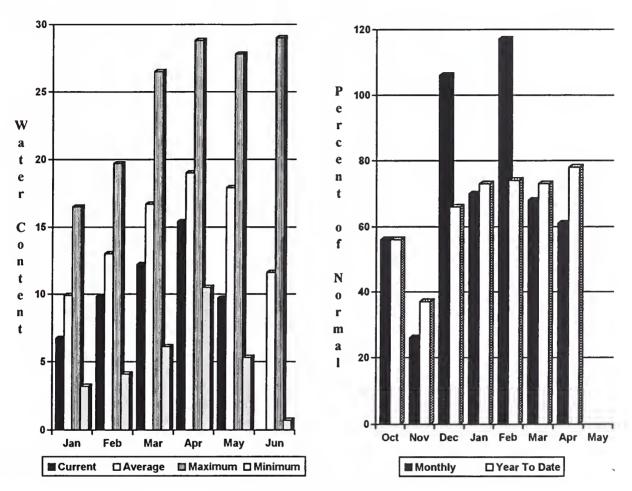
Quartz Peak SNOTEL



2) Colville - Pend Oreille River Basins

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

The forecast for the Kettle River streamflow is for 82% of normal; the Pend Oreille, 54%, and the Colville River, 72% of normal for the summer runoff period. Forecast for the Columbia River at Birchbank is for runoff to be 92% of average. April streamflow was 108% of normal in the Pend Oreille River, 157% in the Columbia at the International Boundary, and 204% in the Kettle River. May 1 snow cover was 54% of normal in the Pend Oreille Basin. Snowpack at Bunchgrass Meadow SNOTEL site contained 13.8 inches of water, the average May 1 reading is 26.6 inches. Precipitation during April was 61% of average, bringing the water year-to-date to 78% of normal. Temperatures were four degrees above normal for April.

COLVILLE - PEND OREILLE RIVER BASINS

Streamflow Forecasts - May 1, 1994

		<<	- Drier		Future Co	onditions =	Wette	>>	
Forecast Point	Forecast Period	 90% (1000AF)	70% (1000AF)	5 	0% (Most (1000AF)	Exceeding * • Probable) (% AVG.)	:	10% (1000AF)	 30-Yr Avg. (1000AF)
PEND OREILLE bl Box Canyon (1,2)	MAY-JUL	3500	5180		5940	53	6700	8380	11220
	MAY-SEP	4010	5860	- 1	6700	54	7540	9390	12430
	MAY-JUN	2960	4360	-	4990	53	5620	7020	9410
CHAMOKANE CK nr Long Lake	MAY-AUG	0.3	3.1	-	5.1	54	 7.1	9.9	9.4
	JUL-AUG	1.6	1.9	-	2.0	61	2.1	2.4	3.3
COLVILLE at Kettle Falls	MAY-SEP	37	51	-	61	72	 70	84	84
	MAY-JUL	29	42	1	51	70	60	73	73
	MAY-JUN	25	37	į	45	70	53	65	64
KETTLE near Laurier	MAY-SEP	1030	1190		1300	82	1410	1570	1582
	MAY-JUL	1090	1230	i	1320	89	1410	1550	1489
	MAY-JUN	1000	1110	į	1190	91	1270	1380	1314
COLUMBIA at Birchbank (1,2)	MAY-JUL	25800	28100		29100	91	30100	32400	32090
, , ,	MAY-SEP	33300	36200	i	37500	92	38800	41700	40760
	MAY-JUN	18300	19900	İ	20600	91	21300	22900	22620
COLUMBIA at Grand Coulee Dm (1,2)	MAY-SEP	41800	46000	-	47900	83	49800	54000	57921
	MAY-JUL	34100	37500	İ	39100	82	40700	44100	47614
	MAY-JUN	25700	28200	İ	29400	82	30600	33100	35827
COLVILLE - PEND ORE	EILLE RIVER I	BASINS			 	COLVILLE	- PEND OREILI	LE RIVER BAS	INS
Reservoir Storage (100	00 AF) - End	of April			<u> </u>	Watershed Sr	nowpack Analys	sis - May 1,	
Reservoir	Usable Capacity	This	le Storage Last		 Water	shed	Numbe of	er This	Year as % of
	·	Year	Year	Avg	 		Data Si		Yr Average
ROOSEVELT	5232.0	4191.0	1617.3 1	310.0	Colvi	lle River	0	0	0
BANKS	715.0	670.9	648.0	435.0	Pend	Oreille Rive	er 86	67	54
					 Kett] 	le River	8	78	60

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

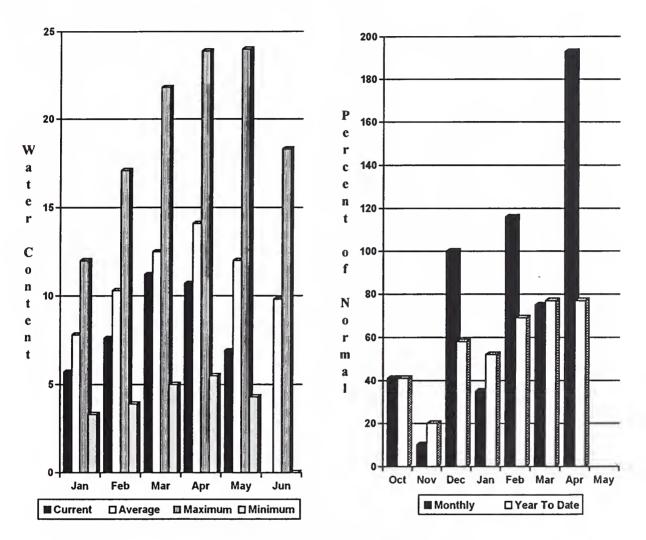
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

3) Okanogan - Methow River Basins

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

Summer runoff forecast for the Okanogan River is for 51% of normal; the Similkameen River, 50%, and the Methow River, 64% of normal. A new forecast point on Salmon Creek near Conconully was 67% of average. May 1 snow cover in the Okanogan was 57% of normal, the Smilkameen 33%, and the Methow 62%. April precipitation in the Okanogan - Methow was 193% of normal, with water year-to-date at 77% of average. April streamflow in the Methow River was 153% of normal, 225% in the Similkameen, and 206% in the Okanogan River. Snow water content at the Harts Pass SNOTEL, elevation 6500 feet, was 25.7 inches; normal for this site is 41.7 inches. Temperatures were four degrees above normal for April. Storage in the Conconully Reservoir was 11,627 acre feet, which is 74% of capacity and 137% of the May 1 average.

For more information contact your local Soil Conservation Service office.

OKANOGAN - METHOW RIVER BASINS

Streamflow Forecasts - May 1, 1994

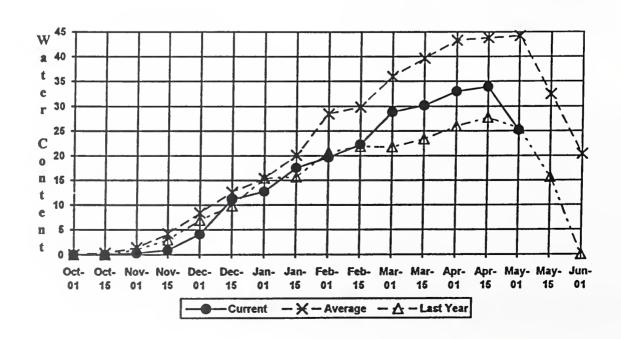
		<<	Drier	Future Co	onditions	Wetter	>>	
Porecast Point	Forecast Period	 90% (1000AF)	70% (1000AF)	50% (Most	-	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SINILKAMEEN nr Nighthawk (1)	may-sep	415	580	655	50	730	895	1300
	MAY-JUL	425	575	640	53	705	855	1205
	MAY-JUN	335	475	540	53	605	745	1014
OKANOGAN RIVER nr Tonasket (1)	MAY-SEP	220	585	I 750	51	915	1280	1485
• •	MAY-JUL	220	545	690	52	835	1160	1328
	MAY-JUN	91	345	458	42	575	825	1095
SALMON CREEK nr Conconully	MAY-JUL	1.9	7.9	 11.9	66	15.9	22	18.0
-	MAY-SEP	2.1	8.3	12.6	67	16.9	23	18.9
METHOW RIVER nr Pateros (1)	MAY-SEP	340	480	 545	64	610	750	854
	MAY-JUL	335	460	520	66	580	705	786
	MAY-JUN	265	385	440	67	495	615	659
OKANOGAN - METHOW Reservoir Storage (10		of April				- METHOW RIVE owpack Analys		1994
,	Usable		e Storage *	•		Numbe	r This	Year as & of
Reservoir	Capacity	This	Last	Water	shed	of		

Reservoir	Usable Capacity	*** Usal This Year	Last Year	ge *** Avg	Watershed	Number of Data Sites	This Year	r as % of
SALMON LAXE	10.5	9.9	7.7	8.0	Okanogan River	27	62	52
CONCONULLY RESERVOIR	13.0	11.6	6.7	8.0 	Methow River	2	67	62

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

Rainy Pass SNOTEL



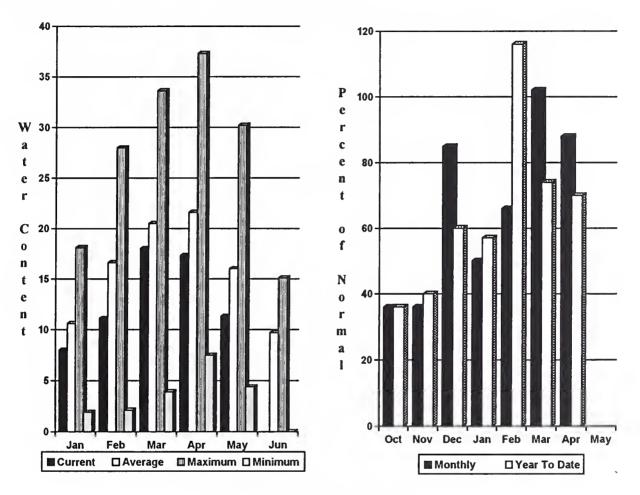
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

4) Wenatchee - Chelan River Basins

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

The summer forecast for the Chelan River is for 69% of normal, for the Wenatchee River it is 54%, and 76% for the Squilchuck-Stemilt. Icicle Creek can expect below normal runoff this summer. Streamflow for April on the Chelan River was 156% of average and on the Wenatchee River it was 143% of normal. May 1 snowpack in the Wenatchee Basin was 70% of average, the Chelan 65% and the Stimelt was 42% of normal. Precipitation during April was 88% of normal in the basin and 70% for the year-to-date. Runoff for the Entiat River is forecast to be 74% of normal for the summer. Reservoir storage in Lake Chelan was 281,300 acre feet or 63% of May 1 average and 42% of capacity. Lyman Lake SNOTEL had the most snow water with 42.2 inches of water. This site would normally have 58.4 inches.

WENATCHEE - CHELAN RIVER BASINS

Streamflow Forecasts - May 1, 1994

		<<	Drier	Future Co	nditions -	Wetter	>>	
Forecast Point	Forecast	 		- Chance Of E	xceeding * •			
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
CHELAN RIVER at Chelan (1)	MAY-SEP	515	655	720	69	785	925	1041
	MAY-JUL	455	575	633	70	690	815	905
	MAY-JUN	365	455	500	72	545	635	693
STEHEKIN R. at Stehekin	MAY-SEP	475	520	l 550	73	 580	625	751
	MAY-JUL	395	435	460	74	485	525	625
	MAY-JUN	295	320	340	74	360	385	462
ENTIAT RIVER nr Ardenvoir	MAY-SEP	122	141	 154	74	167	186	208
	MAY-JUL	111	128	140	74	152	169	188
	MAY-JUN	90	104	113	75	122	136	150
ENATCHEE R. at Peshastin	MAY-SEP	275	570	 765	54	960	1250	1428
	MAY-JUL	270	530	705	55	880	1140	1277
	MAY-JUN	230	430	568	57	705	905	997
STEMILT nr Wenatchee (miners in)	MAY-SEP	60	87	105	76	123	150	138
CICLE CREEK nr Leavenworth	APR-SEP	184	255	305	82	355	425	370
	APR-JUL	169	235	280	82	325	390	340
	APR-JUN	137	189	225	83	260	315	270
OLUMBIA R. bl Rock Island Dam (2)	MAY-SEP	44200	48400	 51300	81	54200	58400	62987
	MAY-JUL	36400	39900	42300	81	44700	48200	52239
	MAY-JUN	27600	30200	32000	81	33800	36400	39509
WENATCHEE - CHELAN R					WENATCHEE	- CHELAN RIV	ER BASINS	
Reservoir Storage (1000	AF) - End	of April			Watershed Sr	nowpack Analys	is - May 1,	1994

R	eservoir Storage (1000	AF) - End	of April			Watershed Snowpack Analysis - May 1, 1994					
Reservoir		Usable Capacity 	*** Usa This Year	ble Stora Last Year	ge *** Avg	Watershed	Number of Data Sites	This Yea	r as % of Average		
CHELAN LAKE		676.1	281.3	209.9	448.8	Chelan Lake Basin	4	88	65		
						Entiat River	1	0	0		
						Wenatchee River	7	102	70		
						Squilchuck Creek	0	0	0		
						Stemilt Creek	1	24	42		
						Colockum Creek	1	0	0		

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

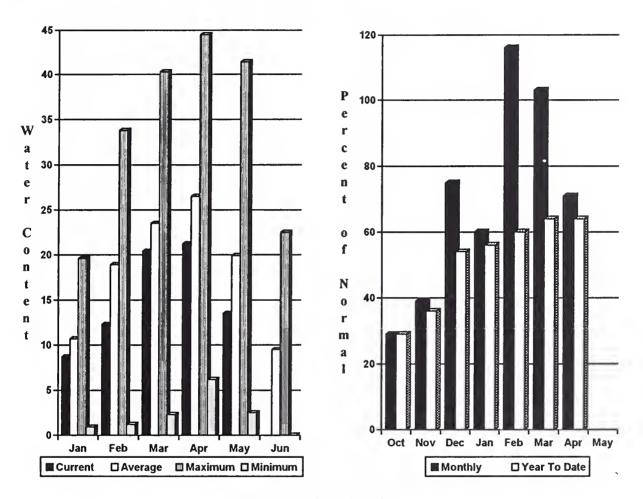
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

5) Yakima River Basin

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

May 1 reservoir storage for the five major reservoirs was 513,200 acre feet, 66% of average. May 1 summer streamflow forecasts are for below normal in the Yakima Basin. Forecasts for the Yakima River at Cle Elum are for 66% of normal; Naches River, 72%; the Yakima River near Parker, 65%; Ahtanum Creek, 71%; and the Tieton River, 76%. forecast point for the Klickitat River near Glenwood was 55% of April streamflows had the Yakima River at Parker at 105% of normal, 129% for the Yakima near Cle Elum, and 123% for the Naches May 1 snowpack was 68% based upon 15 snow courses and SNOTEL April precipitation was 71% of normal and 64% for the water year-to-date. Temperatures were three degrees above average for Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U. S. Bureau of Reclamation's forecast for the total water supply available which includes irrigation return flow.

YAKIMA RIVER BASIN

Streamflow Forecasts - May 1, 1994

		<<=====	Drier	Future Cor	ditions	Wetter	>>	
Forecast Point	Forecast			- Chance Of Ex	ceeding * =			
	Period	90%	70%		robable)		10%	30-Yr Avq.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
KEECHELUS LAKE INFLOW	MAY-JUL	48	58		68 l	72	82	96
	MAY-SEP	50	63	71	66	79	92	107
	MAY-JUN	39	49	56	69	63	73	81
KACHESS LAKE INFLOW	MAY-JUL	46	52	l 57	66 I	62	69	86
	MAY-SEP	45	54	59	64	65	73	92
	MAY-JUN	39	46	50	68	54	61	74
CLE ELUM LAKE INFLOW	MAY-JUL	199	215	 230	68	245	260	339
	MAY-SEP	210	235	250	66	265	290	378
	MAY-JUN	154	174	188	68	200	220	276
YAKIMA at Cle Elum	MAY-JUN	305	345	 370	68	395	435	546
	MAY-JUL	380	420	447	68	475	515	657
	MAY-SEP	405	455	490	66	525	575	740
BUMPING LAKE INFLOW	MAY-SEP	69	80	 87	74	94	105	117
	MAY-JUL	67	75	81	76	87	95	106
	MAY-JUN	54	61	66	77	71	78	86
AMERICAN RIVER near Nile	MAY-SEP	67	76	82	80	88	97	102
	MAY-JUL	61	70	75	82	81	89	92
	MAY-JUN	49	57	63	84	69	77	75
RIMROCK LAKE INFLOW	MAY-SEP	130	145	155	76	165	180	204
	MAY-JUL	113	123	130	78	137	148	167
	MUL-YAM	86	95	102	80	109	119	128
NACHES near Naches	MAY-SEP	405	455	493	72	530	580	686
	MAY-JUL	375	420	450	74	480	525	609
	MAY-JUN	310	350	375	74	400	440	505
AHTANUM CREEK nr Tampico (2)	MAY-SEP	19.0	24	27	71	30	36	38
	MAY-JUL	17.0	22	25	74	28	33	34
	MAY-JUN	15.0	18.0	21	75 	24	27	28
MAKIMA near Parker	MAY-SEP	855	960	1030	65	1100	1200	1580
	MAY-JUL	775	865	930	67	995	1080	.1390
	MAY-SEP	855	960	1030	65 	1100	1200	1580
LICKITAT near Glenwood	MAY-JUN	34	42	48	55	54	62	87
	MAY-SEP	45	57	64	55	72	83	117

YAKIMA RIVER BASIN Reservoir Storage (100	0 AF) - End	of April			YAKIMA RIVE Watershed Snow	R BASIN pack Analysis -	May 1, 19	94
Reservoir	Usable Capacity	*** Usa This Year	ble Stora Last Year	age *** A v g	Watershed	Number of Data Sites	This Yea	r as % of Average
KEECHELUS	157.8	102.9	95.6	119.0	Yakima River	15	88	68
KACHESS	239.0	102.2	107.9	197.0	Ahtanum Creek	1	68	71
CLE ELUM	436.9	187.3	172.9	308.0				
BUMPING LAKE	33.7	25.4	22.2	15.0				
RIMROCK	198.0	95.4	102.4	144.0				

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

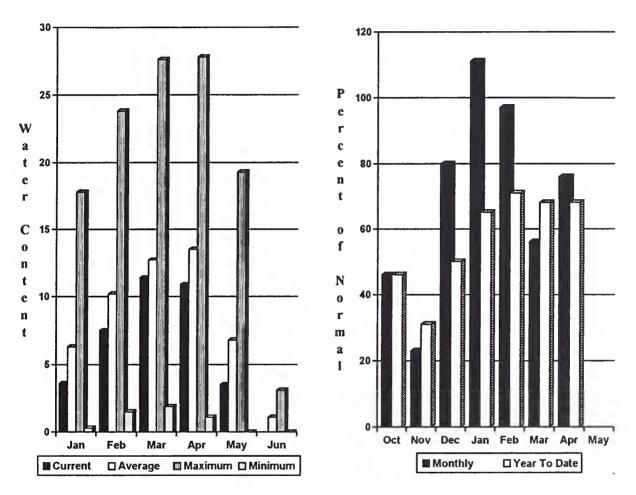
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

6) Walla Walla River Basin

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

May 1 snowpack was at 52% of normal. The forecast for the coming summer is for 81% of average streamflow in the Walla Walla River for 51% in the Grande Ronde; the Snake River, 81%; and 87% in Mill Creek. April streamflow was 135% of normal in the Walla Walla River, 71% for the Snake River, and 96% on the Grande Ronde River near Troy. April precipitation was 76% of average, bringing the year-to-date precipitation to 68% of normal. The Touchet SNOTEL site had 20.2 inches of water equivalent. The normal May 1 reading for this site is 26.7 inches. Temperatures were four degrees above average for April.

WALLA WALLA RIVER BASIN

Streamflow Forecasts - May 1, 1994

90% (1000AF) 235 220 3880 4450	70% (1000AF) 405 405 6140 7060	- Chance Of E 50% (Most (1000AF) 480 490 7170		30% (1000AF) 555 575	10% (1000AF) 725 760	30-Yr Avg. (1000AF) 872 970
220 3880	405 6140	490	51			
220 3880	405 6140	490	51			
		 7170	42			
4450	7060	•		8200	10500	16940
	,,,,,	8250	42	9440	12100	19650
3.4	5.3	6.6	88	7.9	9.8	7.5
3.2	5.1	6.4	88	7.7	9.6	7.3
3.2	5.0	6.2	87	7.4	9.2	7.1
24	28	30	81	32	36	37
47000	53900	 58500	68	63100	70000	85635
38800	44500	48400	68	52300	58000	71413
30400	34800	37800 	68 	40800	45200	55578
3	8800	88800 44500	88800 44500 48400 80400 34800 37800 	88800 44500 48400 68 80400 34800 37800 68 	88800 44500 48400 68 52300 80400 34800 37800 68 40800 	88800 44500 48400 68 52300 58000 80400 34800 37800 68 40800 45200

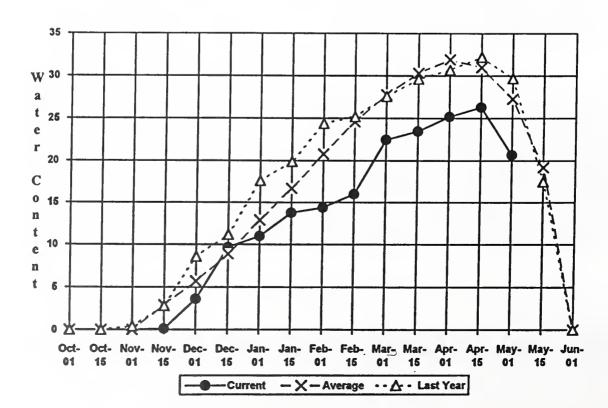
	Reservoir Storage (1000	AF) - End	of April			Watershed Snowpa	ck Analysis -	May 1, 199	94
Reservoir		Usable Capacity	*** Usabl This Year	le Storage Last Year	Avg	Watershed	Number of Data Sites	This Year	
						Mill Creek	2	47	52

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) The value is natural flow actual flow may be affected by upstream water management.

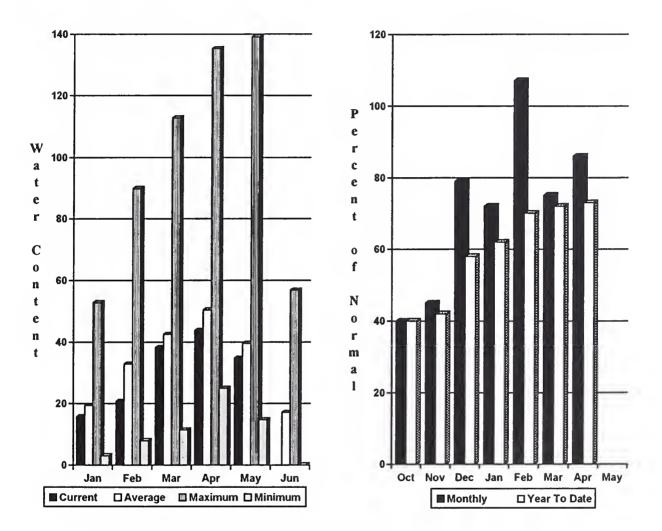
Touchet #2 SNOTEL



7) Cowlitz - Lewis River Basins

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

April precipitation was 86% of normal. It brought the precipitation to 73% of average for the water year. May 1 snow cover for the Cowlitz River was 82%, and for the Lewis River it was 97%. The forecast for summer runoff in the Lewis River is 52% of normal. The Cowlitz River, is forecasted for 53% of normal runoff. April streamflow in the Cowlitz River was 95% of average, and 142% in the Lewis River. The Paradise Park SNOTEL contained the most water content for the basin with 61.2 inches of water. Normal May 1 water content is 61.8 inches. Temperatures were three degrees above normal for April.

COWLITZ - LEWIS RIVER BASINS

Streamflow Forecasts - May 1, 1994

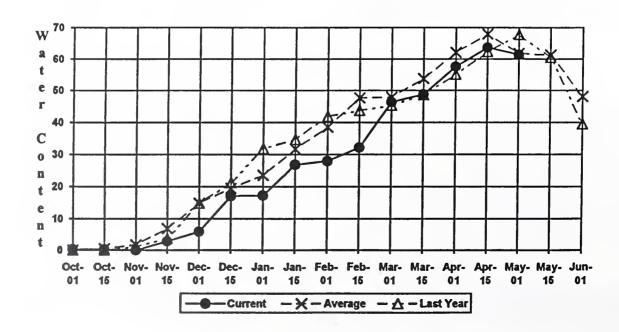
		<<====== 	Drier	Future Co	onditions	Wetter	·>>			
Forecast Point	Porecast	! 	Chance Of Exceeding *							
	Period	90% (1000AF)	70% (1000AF)		Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg (1000AF		
EWIS RIVER at Ariel (2)	MAY-SEP	230	355	440	52	525	655	848		
	MAY-JUL	200	305	375	54	445	550	696		
	MAY-JUN	176	260	320	55	380	465	578		
OWLITE R. bl Mayfield Dam (2)	MAY-SEP	35	500	 815	53	1130	1600	1531		
	MAY-JUL	29	420	685	53	950	1340	1292		
	MAY-JUN	19.0	335	550	53	765	1080	1038		
OWLITE R. at Castle Rock (2)	MAY-SEP	20	570	l 975	48	1380	1970	2021		
	MAY-JUL	17.0	470	806	48	1140	1640	1679		
	MAY-JUN	14.0	380	650	48	920	1320	1349		
LICKITAT near Glenwood	MAY-JUN	34	42	 48	55	54	62	87		
	MAY-SEP	45	57	64	55	72	83	117		

COWLITZ - LEWIS RIVER BASINS Reservoir Storage (1000 AF) - End of April				COWLITZ - LEWIS RIVER BASINS Watershed Snowpack Analysis - May 1, 1994				
Reservoir	Usable Capacity 		ble Storag Last Year		Watershed	Number of Data Sites	This Yea	r as % of
					Cowlitz River	6	· 90	82
					Lewis River	4	89	97

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

PARADISE SNOTEL



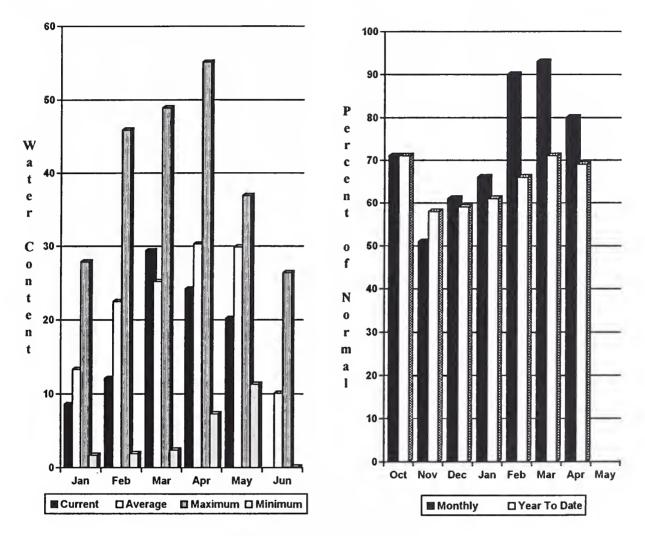
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

8) White - Green River Basins

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

April precipitation was 80% of normal, It brought the water year-to-date to 69% of average. Summer runoff is forecasted to be 69% of normal for the Green River and 72% for the Cedar River, 66% for the Rex River; 78% for the South Fork of the Tolt River and for the Cedar River at Cedar Falls, 64%. May 1 snowpack was 75% of normal in the White River Basin and 56% in the Green River Basin. Water content on May 1 at the Stampede Pass SNOTEL, at an elevation of 3860 feet, was 26.8 inches. This site has a May 1 average of 38.5 inches. Temperatures were three degrees above average for April.

WHITE - GREEN RIVER BASINS

Streamflow Forecasts - May 1, 1994

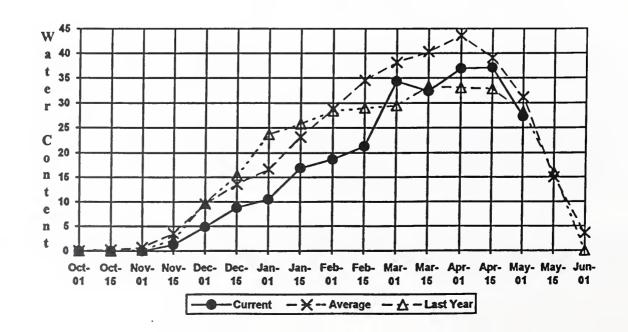
Forecast Point	Pomonet	l 1		- Change Of T	xceeding * ==			
POTECAST POINT	Forecast Period	90%	70%	- Chance Of E		30%	10%	30-Yr Av
	101104	(1000AF)	(1000AF)		(% AVG.)	(1000AF)	(1000AF)	(1000A
REEN RIVER below Howard Hanson Dam	MAY-JUL	7 5	97	112	66	127	149	17
	MAY-SEP	96	121	137	69	154	178	19
	MAY-JUN	65	84	97	66	110	129	14
EDAR RIVER near Cedar Falls	MAY-JUL	26	34	l 39	70	44	52	5
	MAY-SEP	31	40	46	72	52	61	6
	MAY-JUN	25	31	35	74	39	45	4
EX RIVER near Cedar Falls	MAY-JUL	7.0	10.1	 12.3	64	14.5	17.6	19.
	MAY-SEP	10.0	13.0	15.0	66	17.0	20	2
	MAY-JUN	6.6	9.1	10.8	64	12.5	15.0	16.
EDAR RIVER at Cedar Falls	MAY-JUL	4.0	22	35	65	48	66	5
	MAY-SEP	1.0	20	35	64	50	71	5
	MAY-JUN	10.0	24	33	63	42	56	5
OUTH FORK TOLT near Index	MAY-JUL	5.8	7.3	8.3	73	9.3	10.8	11.
	MAY-SEP	7.6	9.5	10.8	78	12.1	14.0	13.
	MAY-JUN	5.0	6.2	7.0	75 1	7.8	9.0	9.

	WHITE - GREEN RIVER BASINS Reservoir Storage (1000 AF) - E	nd of April		WHITE - GREEN Watershed Snowpo	N RIVER BASINS ack Analysis -	May 1, 19	94
Reservoir	Usable Capacity	This		Watershed	Number of Data Sites	This Yes	ar as & of
			 	White River	2	73	75
				Green River	2	96	56
			İ	Cedar River	0	0	0

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

Stampede Pass SNOTEL



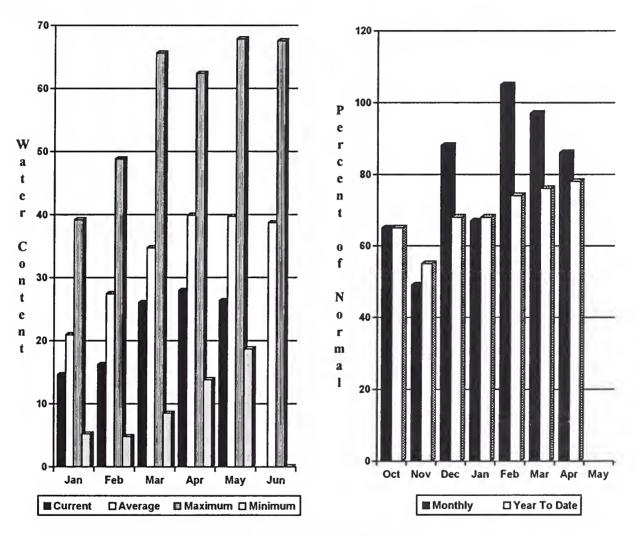
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

9) North Puget Sound River Basins

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

May 1 snow cover in the Skagit River was 59% of normal, and in the Baker River it was 72% of average. Forecast for the Skagit River streamflow is for 65% of normal for the spring and summer period. April streamflow in the Skagit River was 127% of average. Other summer forecasts include the Baker River at 84% of average and Thunder Creek at 81%. Precipitation for April was 86% of average with a water year-to-date at 78% of normal. Rainy Pass SNOTEL, at 4780 feet, had 24.7 inches of water content. Normal May 1 water content is 36.4 inches. May 1 reservoir storage was above average, with Ross Lake at 139% normal and 64% of capacity. April temperatures were four degrees above normal.

NORTH PUGET SOUND RIVER BASINS

Streamflow Forecasts - May 1, 1994

		<<	Drier	Future Co	onditions	Wetter	>>			
Forecast Point	Forecast	precast Chance Of Exceeding *								
	Period	90% (1000AF)	70% (1000AF)		Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg (1000AF		
THUNDER CREEK near Newhalem	MAY-JUL	146	160	170	81	180	194	209		
	MAY-SEP	230	240	250	81	260	270	308		
	MAY-JUN	85	97	106	82	115	128	129		
SKAGIT RIVER at Newhalem (2)	MAY-SEP	965	1150	 1270	65 J	1390	1580	1963		
	MAY-JUL	810	960	1060	66	1160	1310	1608		
	MAY-JUN	610	740	830	70	920	1050	1188		
BAKER RIVER near Concrete	MAY-JUL	490	540	l 575	82	610	660	703		
	MAY-SEP	655	730	780	84	830	905	930		
	MAY-JUN	310	355	390	82	425	470	478		
				l	1					

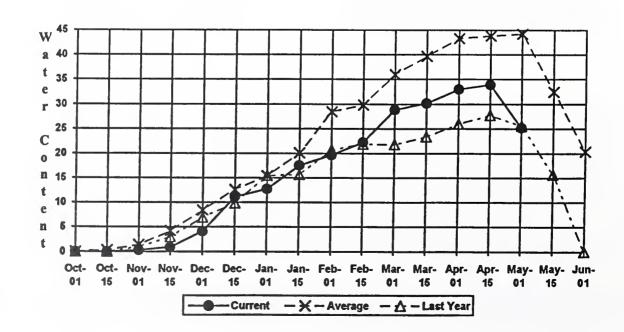
	UGET SOUND RIVER BASINS Storage (1000 AF) - End	NORTH PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - May 1, 1994						
Reservoir	Usable Capacity		Last	nge *** Avg	Watershed	Number of Data Sites		r as % of
ROSS	1404.1	893.3	636.2	644.4	Snohomish River	3	112	79
DIABLO RESERVOIR	90.6	87.0	87.6		Skagit River	13	. 99	59
GORGE RESERVOIR	9.8	8.0	8.1	 	Baker River	2	130	72

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) The value is natural flow actual flow may be affected by upstream water management.

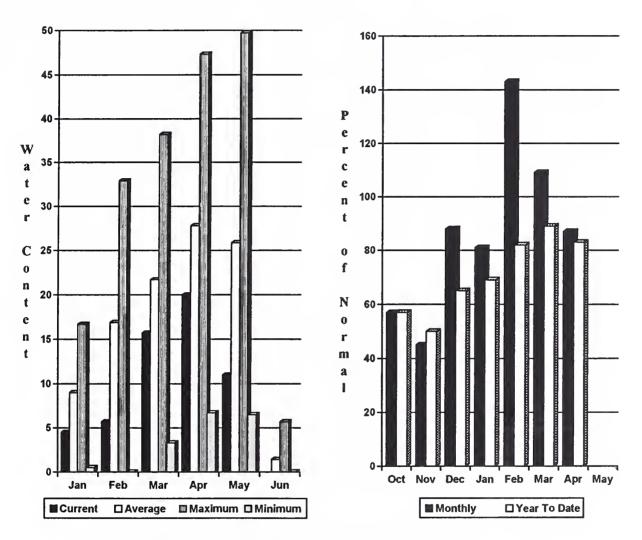
Rainy Pass SNOTEL



10) Olympic Peninsula River Basins

Mountain Snowpack* (inches)

Precipitation* (% of normal)



*Based on selected stations

April precipitation was 87% of average. Precipitation has accumulated at 83% of normal for the water year. April precipitation at Quillayute was 6.5 inches. May 1 snow cover at Mount Crag SNOTEL in the Olympic Basin was slightly below normal at 91%. May forecasts for streamflow in the basin are for 73% of average for the Dungeness River and 75% for the Elwha River. The Big Quilcene can expect near normal runoff this summer. The Mount Crag SNOTEL near Quilcene had 20.4 inches of snow water content on May 1. Normal May 1 water content is 21.6 inches. Temperatures were three degrees above normal for April.

OLYMPIC PENINSULA RIVER BASINS

Streamflow Forecasts - May 1, 1994

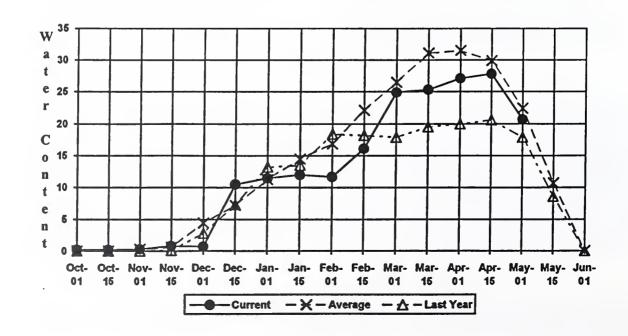
		<<	Drier	Puture Co	onditions	Wetter	>>	
Forecast Point	Porecast	 		- Chance Of E	exceeding * =			
	Period	90%	70%	50% (Most	Probable)	30%	104	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
DUNGENESS RIVER nr Sequim	may-sep	79	93	102	73	111	125	140
	MAY-JUL	66	77	84	75	91	102	112
	MAY-JUN	46	55	62	78	69	78	79
ELWHA RIVER nr Port Angeles	MAY-SEP	245	290	320	75	350	395	427
	MAY-JUL	199	235	260	76	285	320	342

	OLYMPIC PENINSULA RIVER BASINS Reservoir Storage (1000 AF) - End			OLYMPIC PENINSULA RIVER BASINS Watershed Snowpack Analysis - May 1, 1994				
Reservoir	Usable Capacity 	Last	Avg	Watershed	Number of Data Sites		r as & of	
		 		Elwha River	1	80	32	
				Morse Creek	1	116	61	
				Dungeness River	1	38	16	
				Quilcene River	1	114	91	
				Wynoochee River	0	· О	0	

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

Mount Crag SNOTEL



^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Soil
 Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 248, Portland, OR 97209-3489.

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The Following Organizations Cooperate With the Soil Conservation Service in Snow Survey Work*:

Canada

Ministry of the Environment

Investigations Branch, Victoria, British Columbia

State

Washington State Department of Ecology

Washington State Department of Natural Resources

Federal

Department of the Army Corps of Engineers

U.S. Department of Agriculture

Forest Service

U.S. Department of Commerce NOAA, National Weather Service

U.S. Department of Interior

Bonneville Power Administration

Bureau of Reclamation Geological Survey National Park Service Bureau of Indian Affairs

Local

City of Tacoma
City of Seattle

Chelan County P.U.D.

Pacific Power and Light Company

Puget Sound Power and Light Company Washington Water Power Company

Snohomish County P.U.D. Colville Confederated Tribes

Spokane County Yakama Indian Nation

Private

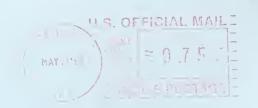
Okanogan Irrigation District

Wenatchee Heights Irrigation District Newman Lake Homeowners Association

^{*}Other organizations and Individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.



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Washington Basin Outlook Report

Soil Conservation Service Spokane, WA



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